



LAND DEVELOPMENT AGENCY

ST KEVIN'S STRATEGIC HOUSING DEVELOPMENT

At the former St. Kevin's Hospital and Grounds, Shanakiel, Cork.

Materials & Finishes December 4th 2020

Reddy Architecture + Urbanism



AN BORD PLEANÁLA ITEM; Additional Specific Information Requirement 9:

“A report that specifically addresses the proposed materials and finishes to the scheme including specific detailing of finishes, the treatment of balconies in the apartment buildings, landscaped areas, pathways, entrances and boundary treatments. Particular regard should be had to the requirement to provide high quality and sustainable finishes and details which seek to create a distinctive character for the development. The documents should also have regard to the long term management and maintenance of the proposed development and a life cycle report for the apartments in accordance with section 6.13 of the Sustainable Urban Housing: Design Standards for New Apartments (2018)”.

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1). Introduction. Material Approach

The material palette proposed for the St. Kevin's Hospital site takes its inspiration from two main sources. The first is the large red brick St Kevin's former Hospital buildings on the site and the brick use on adjoining buildings such as the old Waterworks (now Innovation Hub) building below the site.

The second source is the Victorian and Georgian city ridges of Cork City with their vertical expression and varied use of plaster and brick.

The front of these buildings are clad in brick, slate or stone, with the back often smooth render, an approach employed in the proposed scheme. These influences generate an architecture that has a robust and simple approach in the traditional manner and is very much of its place.

The brick is proposed to have a warm terracotta colour throughout with this changing to a lighter buff brick within the curtilage of St Kevin's Hospital and the Chapel building to its

West. This will ensure St Kevin's Hospital continues to provide the iconic structure on the skyline with the residential elevations subordinate to this protected structure.

The plaster walls will use warm greys and terracotta colours to match with the brickwork and blend into the landscape.



Red Brick Use at St. Kevin's Hospital and Old Cork Waterworks Building below the site.



Plaster, brick &.slate finish to streetscape.



St. Kevins's Hospital Detail .



Georgian & Victorian City Ridges, Cork City.

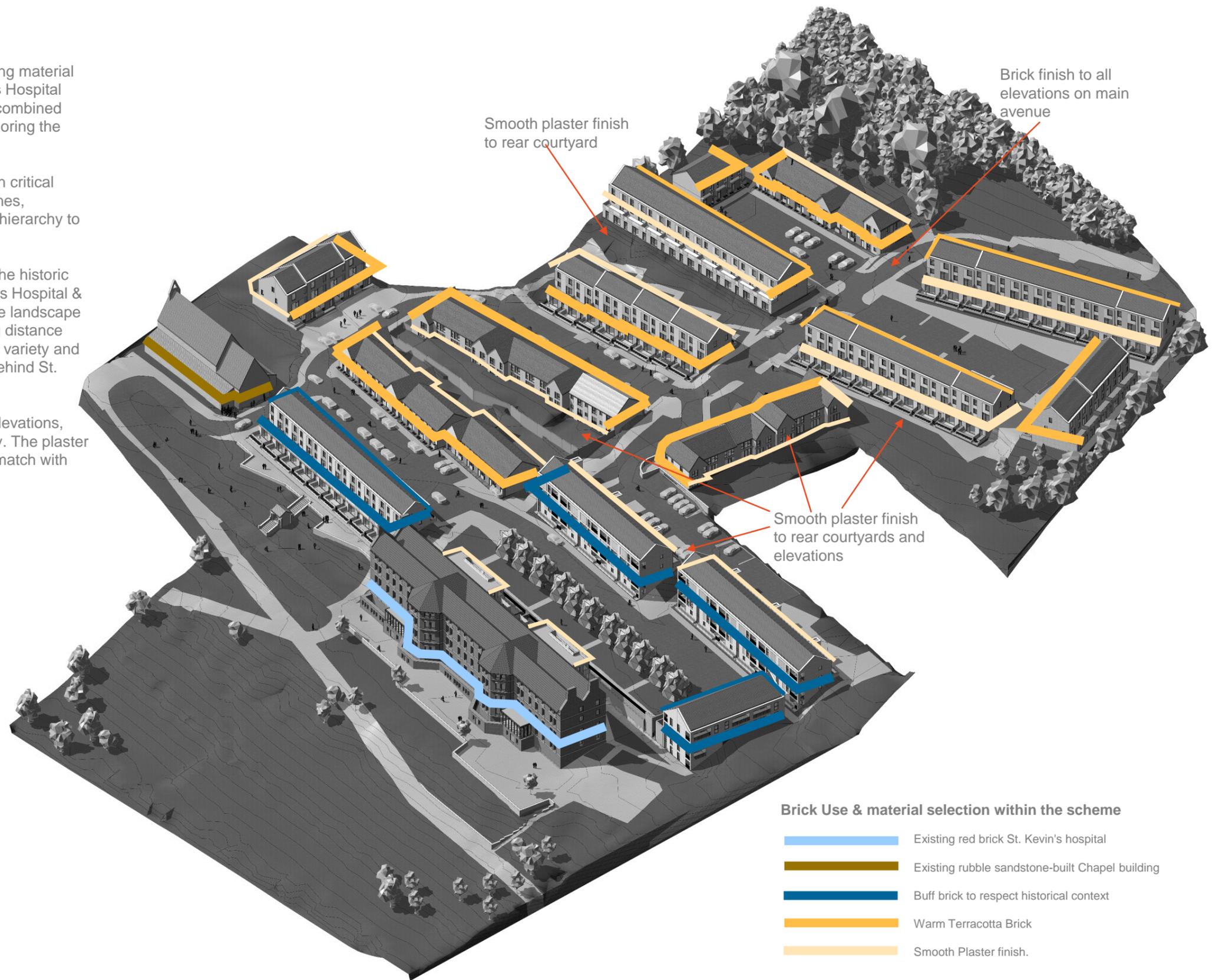
Material Selection Key Plan

The choice of a brick and plaster as the main cladding material for the scheme is inspired by the existing St. Kevin's Hospital building on the site with its full brick façade. This is combined with the city ridge tradition of plaster and slate, anchoring the scheme to its context.

The key plan here demonstrates how brick is used in critical ways throughout the scheme to define character zones, strengthen main routes & greenways and provide a hierarchy to public and semi-public streets and spaces.

In addition, the brick colour lightens as you drop to the historic core of the site, surrounding the protected St. Kevin's Hospital & former Chapel. This will retain their dominance in the landscape when viewed both from within the site and from long distance views from the south. Furthermore providing visual variety and maximising light to the rear north facing courtyard behind St. Kevin's hospital.

It is proposed to use render on rear and courtyard elevations, typical of Victorian & Georgian buildings in Cork City. The plaster walls will use warm greys and terracotta colours to match with the brickwork and blend into the landscape.



2). Materials: WALK UP APARMENTS BLOCK S, T & U

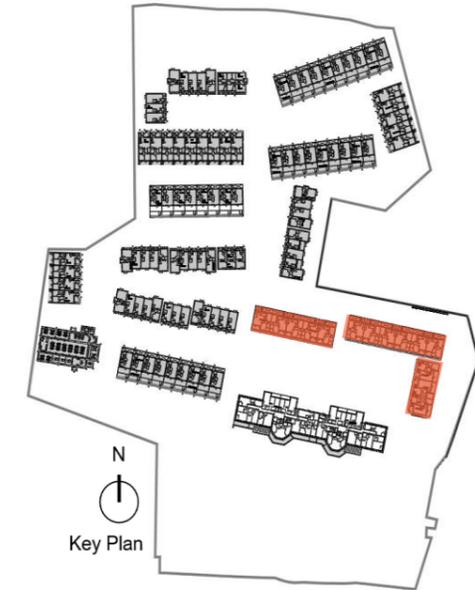
The distinctive façades of these blocks give a unique identify to the courtyard north of St. Kevins Hospital and defines this area as the historic core of the scheme. The use of a lighter buff brick with the use of light mortar will give the buildings a lighter expression, respect the protected former Hospital building and bring reflections and light into the courtyard.



Flush pointed brickwork with Light mortar

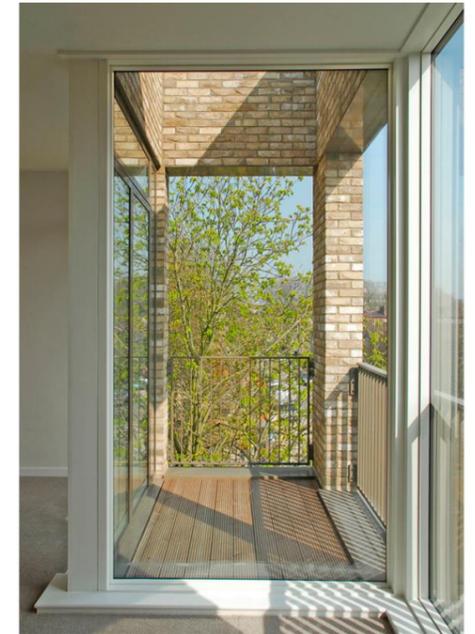


Returning brick soffit to balcony changing to hardwood timber cladding to soffit



Deep reveals with brick detailing

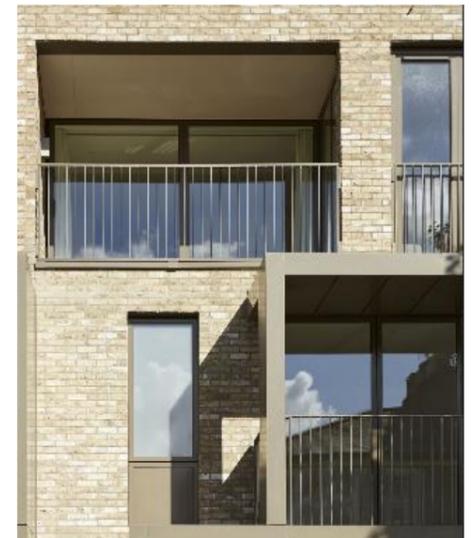
- Buff brick finish with brick return detailing
- Protruded header brick bond detail for elevational variety & interest.
- Recessed balconies: simple powered coated metal railings, and handrails
- Selected aluminium/PVC windows / doors



Example balcony Detailing



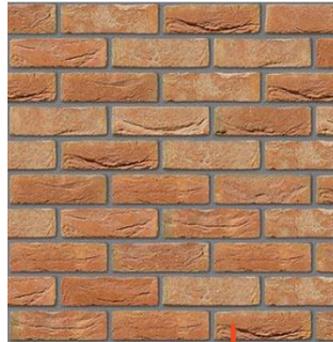
Buff Brick . Ely Court, South Kilburn by Alison Brooks Architects.



3). Materials: DUPLEX UNITS

Distinctive two and three storey façades to the duplex units in the scheme offer a unique identity and interest throughout the scheme.

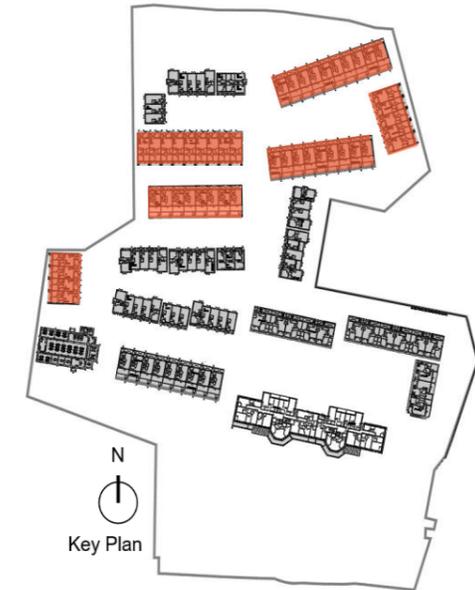
The brick facades are articulated between the windows by using a protruded header brick bond. The brick is proposed to have a warm terracotta colour and it has a warmer expression by the use of a grey mortar. Roofs are a dark, fibre cement slate to give a domestic familiarity to these courtyards



Flush pointed brickwork with dark mortar

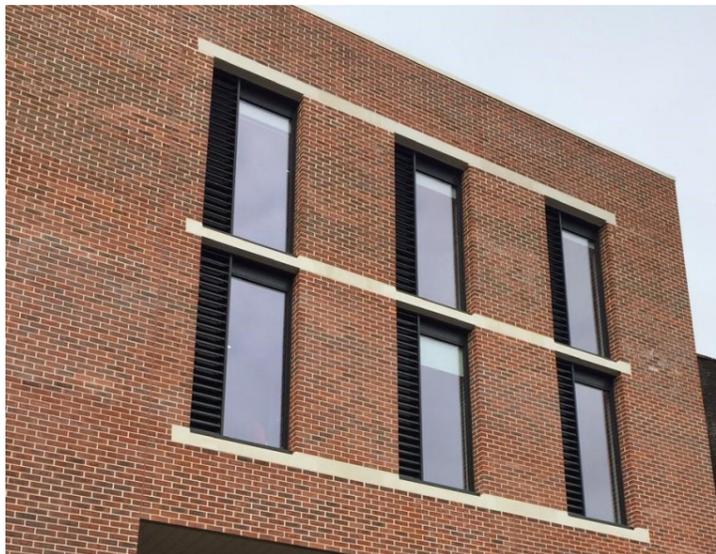


Contemporary single storey volume defining entrances



Fibre cement dark slate to roofs

- Aluminium/PVC selected windows / doors
- Red brick finish with brick return detailing
- Protruded header brick bond detail for elevational variety & interest.
- Smooth plaster finish to projecting porch detail in contemporary grey render



Red Brick Reference



Front elevation demonstrating rhythm and proportion



Protruding brick header bond detail to selected areas on front elevations

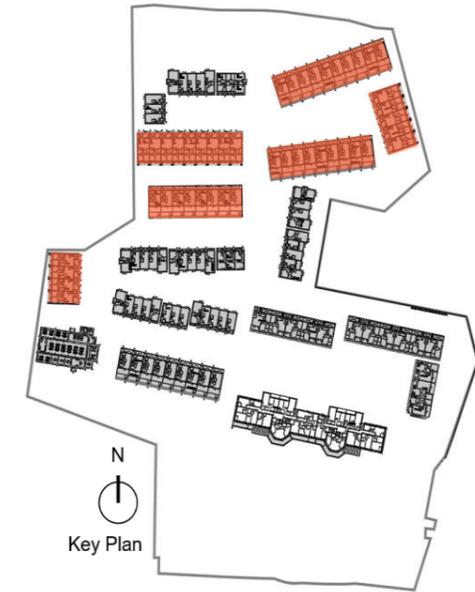


The brick facades to the duplex units are contrasted with render facades. The render use defines rear elevations and some internal courtyards and provides interest throughout the scheme.

Here also the plastered walls follow the brick pattern by having different coloured render around the windows.

The plaster walls will use warm greys and terracotta colours to match with the brickwork and blend into the landscape.

The apartments and duplexes have parapets to be more in keeping with the pattern of brick and plaster parapets along the cork city ridges.



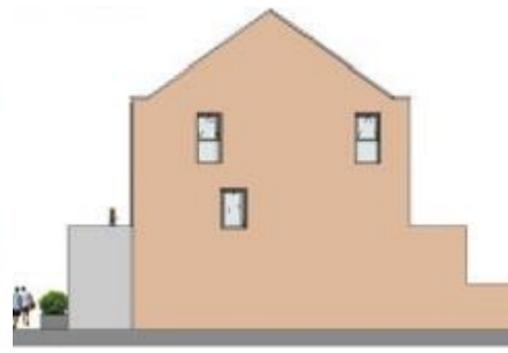
Axonometric front elevation



Axonometric rear elevation



Rear Elevation



Side Elevation



Warm Render References



Render Detail around window openings

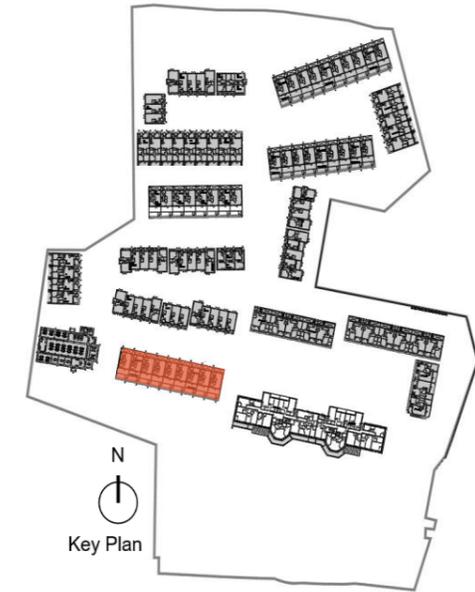
4). Materials: DUPLEX BLOCK R

Block R duplex units sits between the retained Chapel Building and the St Kevins Hospital. It required a differing material approach to the other duplex blocks due to its prominence in the landscape and a desire to recess it into its historical context.

Therefore its brick will follow that of the walk up apartments S,T & U with the use of a lighter buff brick and mortar to give the building a lighter expression, respecting the protected former Hospital building and Chapel.

The slate roofing and masonry detail of the central archway section of the former link corridor structure will be retained as per the method statement in the Architectural Heritage Impact Assessment (AHIA).

Masonry walls to either side of the central archway and steps will be taken down to existing sill level to retain the footprint and form of the remaining section of historic corridor which has lost its function with the site's change of use. The top of this remaining historic wall will be consolidated and rough-racked using rubble sandstone and lime mortar.



Block R southern view showing its relationship within historic context .



Feature header detail to selected areas with brick window reveal



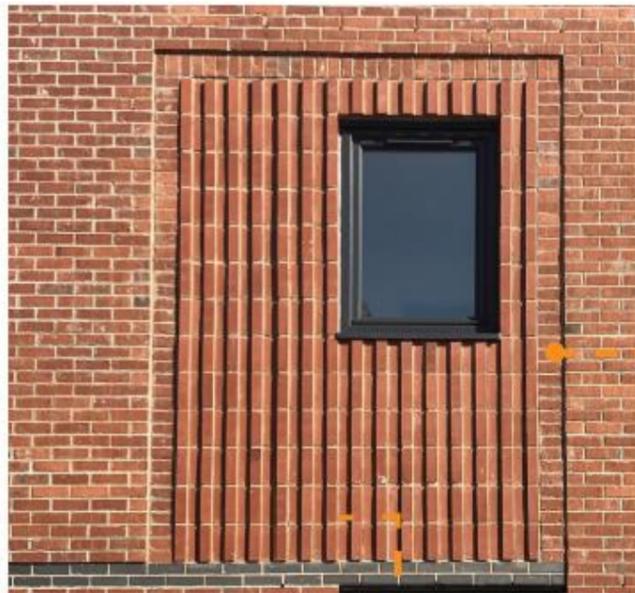
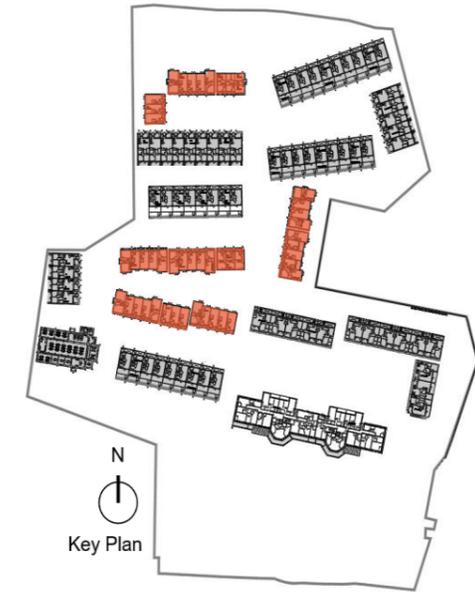
Buff Brick Reference Images . Ely Court, South Kilburn by Alison Brooks Architects.

5). Materials: TOWNHOUSES

The proposal takes its inspiration from the large brick St Kevin's Hospital and city ridge of plaster and slate. The brick facades are articulated around the windows by using a protruded header brick bond. The brick is proposed to have a warm terracotta colour and it has a lighter expression by the use of white mortar. The brick facades are mixed with render facades. Here also the plastered walls follow the brick pattern by having different coloured render around the windows.

The plaster walls will use warm greys and terracotta colours to match with the brickwork and blend into the landscape.

The apartments and duplexes have parapets to be more in keeping with the pattern of brick and plaster parapets along the cork city ridges.



Precedent façade treatment



Precedent façade treatment



Precedent façade treatment



Recessed panel detail to front elevation with feature header to selected areas



Feature header detail to selected areas with brick window reveal



Precedent roof/eaves details



Seamless aluminum rain-water goods



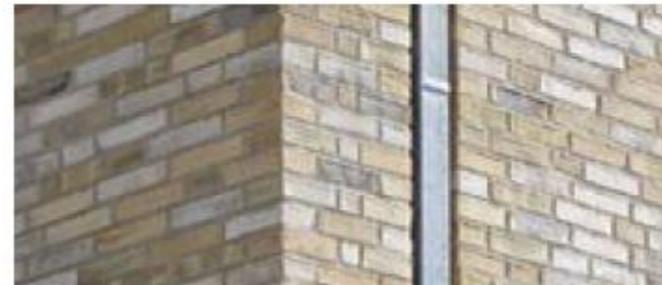
Fibre cement slate to roofs



Flush gable brickwork to fibre cement slate soffit



Extruded aluminum guttering



Extruded aluminum recessed downpipe detail



Front elevation



Side elevation



Rear elevation

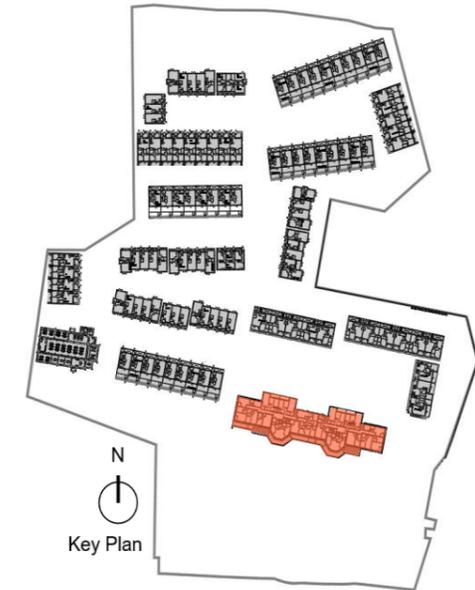
Materials: ST KEVIN'S HOSPITAL CONVERSION

Proposals for this building involve conservation of most of the remaining masonry fabric in accordance with the best practice methodology included in the Architectural Heritage Impact Assessment (AHIA).

The original roof form will be reinstated to match the detail of the surviving east section with cast-iron rainwater goods conserved. All existing chimney stacks will be retained or reconstructed where necessary. Slates salvaged from existing buildings proposed to be demolished on site will be reinstated on St Kevin's roof.

Localised specialist cleaning will restore distinctive south façade with red and yellow brick detailing contrasting with cut limestone sills and dressings. All cogent proportion and moulded detail will be retained in repaired or replacement timber sash windows.

Small new additions to the front elevation will provide proportionate and legibly modern detail which does not detract from the uniformly arranged façade. At the rear, there will be a new interpretation of the restrained elevational treatment that such prominent south-facing buildings have behind grander façades. The central third is proposed to contain a modern glazed and rendered extension flanked by retained rubble-stone and brick end bays. This allows for continued uninterrupted views to the significant front and side elevations of this landmark structure.



← Salvaged natural slate roof

← Light-coloured cast iron rainwater goods complementing cut limestone plinth and cornice

← White-painted repaired or replica timber sash windows

← Contrasting stone string course and cornice-level detail along with limestone sills to be retained, steam-cleaned and repaired where necessary

← Small new glazed lobbies will read as modern replacements of former lean-to structures here but restrained external materials will cause minimal visual interference to overall façade

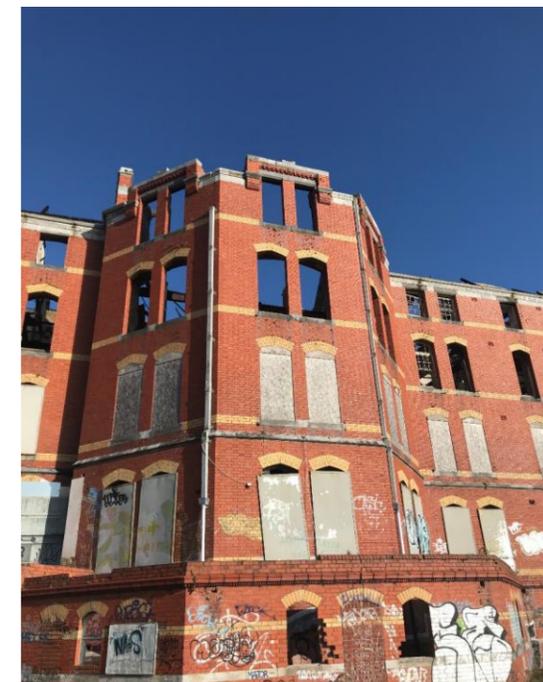
Proposed South Elevation



← Retained elements of rear rubble stone elevations with brick detail will be cleaned if necessary and re-pointed locally where required

← Proposed glazed and render finish to new rear elevations will be legibly contemporary but will be sympathetic to and draw its visual inspiration from the retained historic elevational treatments

Proposed North Elevation



Materials : ST KEVIN'S CHAPEL ENTERPRISE OFFICE CENTRE

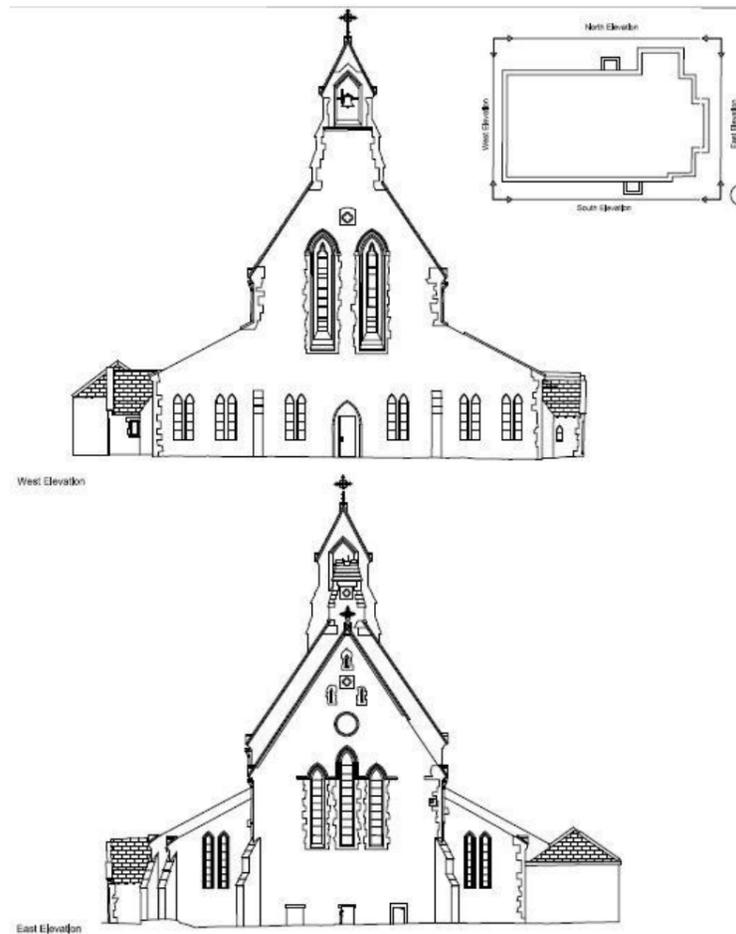
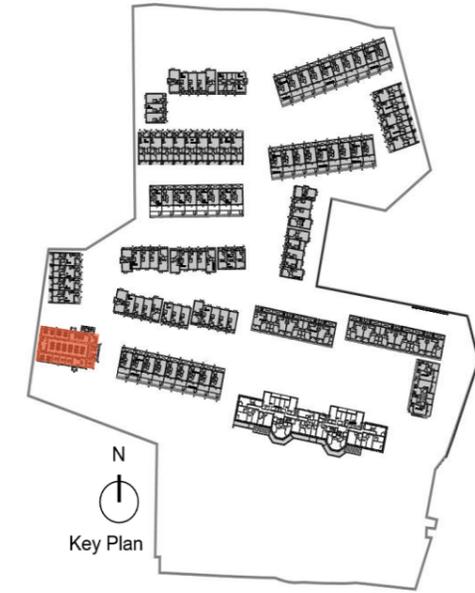
St. Kevin's Chapel :

It is proposed to convert the St. Kevin's Chapel to Office use. The type of office use under consideration is an Enterprise Office Centre whereby a space can be rented by small enterprises or start-ups where there is the provision of shared facilities such as meeting rooms and social spaces for interaction.

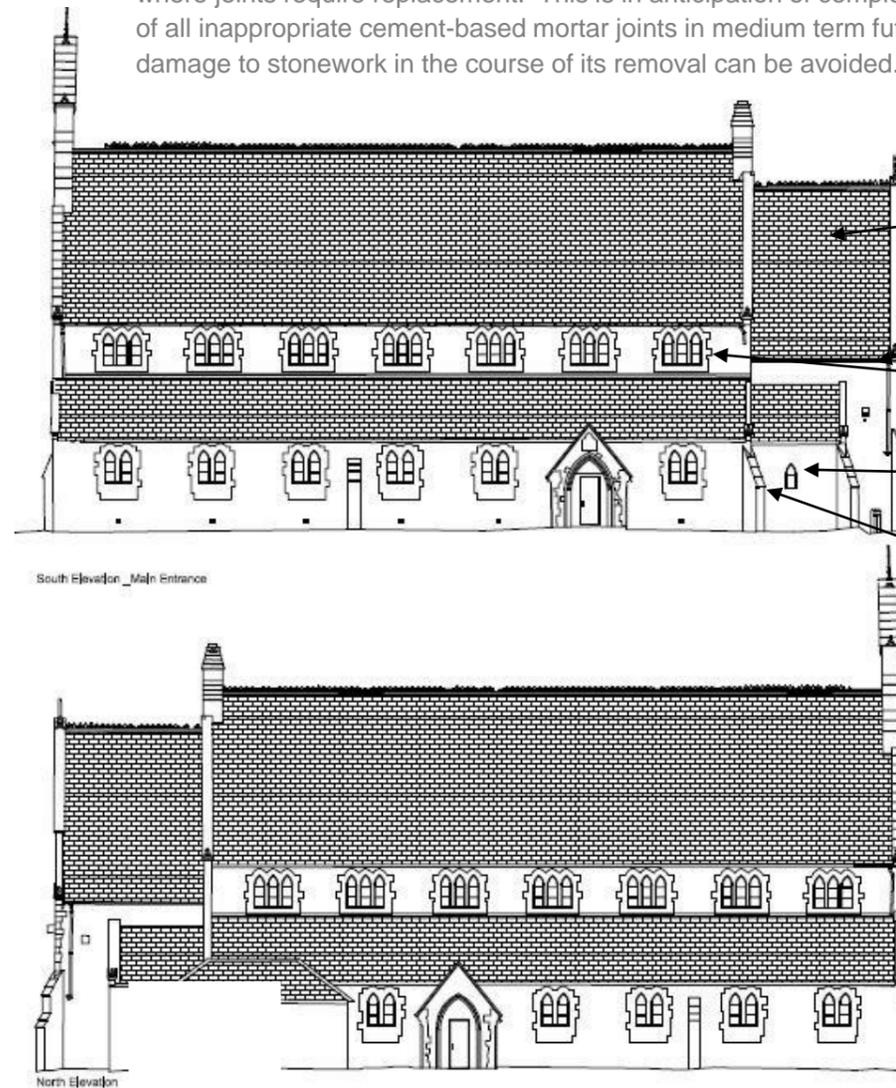
Initial conservation works will include all necessary repairs to the roof, rainwater goods, walls and windows and these will be undertaken in accordance with international best practice as detailed in the method statement appended to the AHIA.

Slates salvaged from the existing chapel roof as well as from existing buildings proposed to be demolished elsewhere on the site should be reinstated on chapel roof prioritising south elevations if quantity is limited

Existing widespread cementitious pointing to rubble masonry should be retained in situ where sound but replaced with lime, finished flush with stone surface where joints require replacement. This is in anticipation of complete replacement of all inappropriate cement-based mortar joints in medium term future if severe damage to stonework in the course of its removal can be avoided.



St Kevin's Chapel – Elevations



Natural slate roof and distinctive crested ridge to be retained following roof restoration

Cast iron rainwater goods painted black, defining line between dark slate roof and light-coloured stone walls

Appropriate leaded or contemporary stained glass windows within limestone frames with specialist conservation of cut stone detail where necessary

Existing rubble sandstone façades to be made good with localised lime mortar pointing where required.

Cut limestone parapet and buttress detail to be retained, steam-cleaned if considered necessary and repaired where presently damaged with new stone to match surrounding masonry detail.



Materials : LANDSCAPE MATERIALITY please also refer to Aecom landscape materiality report.
BOUNDARY TREATMENTS

The design approach for external boundary treatment is to retain as much of the existing boundary walls and planting as possible and to supplement where necessary. Internal boundaries help reinforce local area characteristics.

Existing boundary walls on the east and south are retained but supplemented with native woodland planting where appropriate. The generous woodland area along the south will help creating a dark sky area in accordance with the bat report.

The existing fence and woodland along the northern boundary is also retained and the woodland is supplemented with native species to provide for the loss of trees due to poor condition in accordance with the arboricultural assessment. This also helps creating a dark sky area in accordance with the bat report.

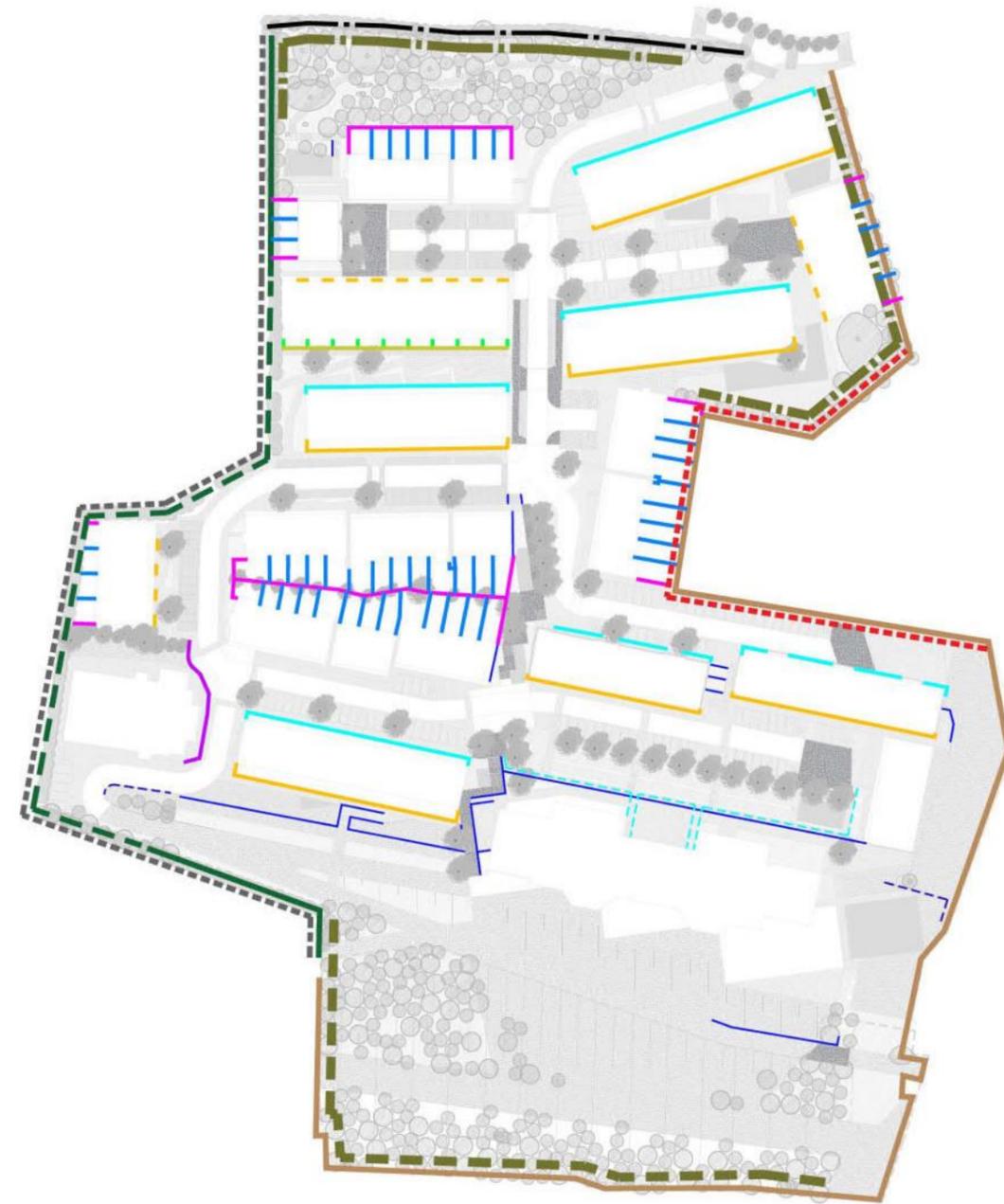
The western boundary is defined with a 1.8m high weld mesh fence that is softened by native hedge planting.

External Boundaries

-  Existing vegetation removed and replaced with native hedge
-  Existing boundary hedge retained
-  Existing woodland retained and supplemented
-  Proposed native woodland planting
-  Existing boundary wall retained
-  Existing boundary fence retained
-  Proposed 1.8m High Weld Mesh Fence
-  Proposed 1.2m Weld Mesh Fence on top of existing boundary wall

Internal Boundaries

-  Proposed 2m high block wall with plaster finish
-  Proposed 2m high horizontal timber panel fence
-  Proposed 1.1m high block wall plastered and capped
-  Proposed 0.5m high brick wall to front gardens
-  Proposed 1.1m high selected painted galvanised railing, with planter
-  Proposed 1.1m high selected painted galvanised railing
-  Proposed 1.1m high divider wall with selected finish
-  Proposed green wall
-  Existing retaining structure to be retained
-  Proposed retaining structure



BOUNDARY TREATMENTS



Native Hedge



Existing Boundary Hedge Retained



Existing Woodland to be Supplemented



Native Woodland



Existing Boundary Wall Retained



Existing Boundary Fence Retained



Weld Mesh Fence



Weld Mesh Fence to Top of Existing Wall



Block Wall with Plaster Finish



Horizontal Timber Panel Fence



1,1m Block Wall, Plastered and Capped



0.5m Brick Wall



1.1m Selected Galvanised Railing



1.1m Divider Wall with Selected Finish

LANDSCAPE MATERIALITY. Softscape Selection



- Woodland
- Shrubs and Groundcover
- Lawn
- Reinforced Grass
- Rain Garden
- Wildflower Planting

LANDSCAPE MATERIALITY. Softscape Selection

Native and non-native wildlife friendly species incorporating four primary planting components; Wildflower planting mixes, shrub mixes, home zone streetscape areas, and woodland planting mix and under-storey.

The existing and proposed planting will create a strong framework to contain and enhance the proposed clusters of residential properties. As demonstrated by the swatches adjacent there is minimal site components proposed for the woodland area. The soft-scape selection has been chosen to complement the existing species and enhance the diversity of the existing planting.

The site boundaries to the north, east and west contain woodland that will be retained and reinforced, comprising of a mix of native tree and scrub species, which will reinforce the woodland character, provide visual containment, and increase habitat.

Additional areas of the proposed woodland planting will also include some ornamental under-storey and bulb species, to increase the variety of seasonal colour and texture. Ornamental planting will be used within the home zones and within the internal park-lets to create a colourful and robust planting palette.

The planting species palette will be derived from the ecological advice in an attempt to maximise biodiversity benefits, such as pollinator friendly planting. There may also be opportunities to install bat boxes in some mature trees, subject to ecologist's recommendations.

Wildflower Mixes Parkland

Wildflower mixes, including pollinator friendly mixes, in some areas will be planted within the open parkland to add a high quality amenity value, it will be used in areas that are too steep for usable activity, they are a form of low maintenance vegetation.



Wildflower Meadow Grass Mix (WM1)		
	Planting Method	% Mix
GF03 All-Ireland Pollinator Plan Wildflower Mixture	Hand Sown	100%

Shrub and Ground Cover Mix 1 (SGM1) to Privacy Strips and Open Spaces						Area: 1,131m ²
Species	Designation	Root Type	Height mm	Spread mm	% Mix in Area	
Rosmarinus officinalis	Container Grown	2 Litre Pot	200-300	200-300	10%	
Euonymus fortunei 'Emerald Gaiety'	Container Grown	2 Litre Pot	200-300	200-300	10%	
Sarcococca hookeriana	Container Grown	2 Litre Pot	300-500	300-500	20%	
Pittosporum tobira	Container Grown	5 Litre Pot	500-700	500min	10%	
Hebe 'Green Globe'	Container Grown	3 Litre Pot	100-200	200-300	10%	
Lavandula angustifolia	Container Grown	2 Litre Pot	200-300	200-300	20%	
Tiarella cordifolia	Container Grown	2 Litre Pot	200-300	200-300	10%	
Carex oshimensis 'Everest'	Container Grown	2 Litre Pot	200-300	300-500	10%	

Shrub Mixes Homezones & Parks

Shrub planting will be used in areas around home zones and play areas where a screen is needed to divide the specific spaces while also adding a positive aesthetic quality.



Lavandula angustifolia



Myrtus communis



Shrub planting on slope

LANDSCAPE MATERIALITY. Softscape Selection

Rain Gardens Homezones & Road Side

Rain gardens are a key element of Sustainable Drainage Systems and will contribute to biodiversity, the all Ireland Pollinator Plan and the local environment.



Small planting areas soften streetscape and aid in run-off alleviation.

Rain Garden Mix (RG1)					Area: 70m ²
Species	Designation	Height mm	Spread mm	% Mix in Area	
<i>Perovskia atriplicifolia</i>	Container Grown	1000 - 1500	500-1000	5%	
<i>Aster ageratoides 'asran'</i>	Container Grown	300-400	300-400	10%	
<i>Aster thomsonii</i>	Container Grown	100 - 500	100 - 500	20%	
<i>Osmunda regalis</i>	Container Grown	300-400	300-400	15%	
<i>Geranium sanguineum</i>	Container Grown	100 - 500	100 - 500	20%	
<i>Stipa tenuissima 'Pony Tails'</i>	Container Grown	200 - 300	200 - 300	10%	
<i>Coreopsis grandiflora 'Sunfire'</i>	Container Grown	100 - 500	100 - 500	20%	

Specimen Trees					
	Qty	Girth	Clear Stem	Height	Roots
<i>Pyrus calleryana 'Chanticleer'</i>	10	20-25 cm	2.0m	min. 450cm	Rootball
<i>Tilia cordata 'Greenspire'</i>	10	20-25 cm	2.0m	min. 450cm	Rootball
<i>Sorbus aucuparia</i>	10	20-35 cm	2.0m	min. 450cm	Rootball
<i>Carpinus betulus 'Fastigiata'</i>	25	30-35 cm	2.2m	min 500cm	Rootball

Woodland

Providing dense visual screening with woodland interest using ground-cover and hedge elements, while retaining existing trees of high value to the development.



Native Woodland Mix 1 (WLM1)						Area: 8,510m ²
Species	Age / Condition	Root Type	Height cm	Spread mm	% Mix in Area	
Semi-Mature Trees						
<i>Quercus robur</i>	20-25cm girth	Root Balled	450-500	n/a	2%	
<i>Betula pendula</i>	20-25cm girth	Root Balled	450-500	n/a	2%	
Standard Trees						
<i>Quercus robur</i>	8-10cm girth	Root Balled	350-400	n/a	5%	
<i>Betula pendula</i>	8-10cm girth	Root Balled	350-400	n/a	5%	
Feathered Trees						
<i>Betula pendula</i>	8-10cm girth	Bare Root	150-175	n/a	10%	
Whips						
<i>Quercus robur</i>	1+2 transplant	Bare root	90-120	n/a	8%	
<i>Betula pendula</i>	1+1 transplant	Bare root	90-120	n/a	8%	
<i>Crataegus monogyna</i>	1+1 transplant	Bare root	90-120	n/a	10%	
<i>Ilex aquifolium</i>	1+1 transplant	Bare root	30-50	n/a	10%	
<i>Euonymus europaeus</i>	1+1 transplant	Bare root	60-90	n/a	10%	
<i>Corylus avellana</i>	1+1 transplant	Bare root	30-50	n/a	10%	
<i>Sambucus nigra</i>	transplant	Bare root	30-50	n/a	10%	
<i>Viburnum opulus</i>	transplant	Bare root	30-50	n/a	10%	

Native Hedgerow M						Area: 8,510m ²
Species	Age / Condition	Root Type	Height cm	Spread mm	% Mix in Area	
<i>Quercus robur</i>	1+2 transplant	Bare root	90-120	n/a	5%	
<i>Betula pendula</i>	1+1 transplant	Bare root	90-120	n/a	5%	
<i>Crataegus monogyna</i>	1+1 transplant	Bare root	90-120	n/a	10%	
<i>Ilex aquifolium</i>	1+1 transplant	Bare root	30-50	n/a	15%	
<i>Euonymus europaeus</i>	1+1 transplant	Bare root	60-90	n/a	10%	
<i>Corylus avellana</i>	1+1 transplant	Bare root	30-50	n/a	20%	
<i>Sambucus nigra</i>	1+1 transplant	Bare root	30-50	n/a	20%	
<i>Viburnum opulus</i>	1+1 transplant	Bare root	30-50	n/a	15%	

Street Trees Homezones & Road Side

Trees will soften the streetscapes and will create a sense of space within the homezones.



Carpinus betulus 'fastigiata'



Sorbus aucuparia

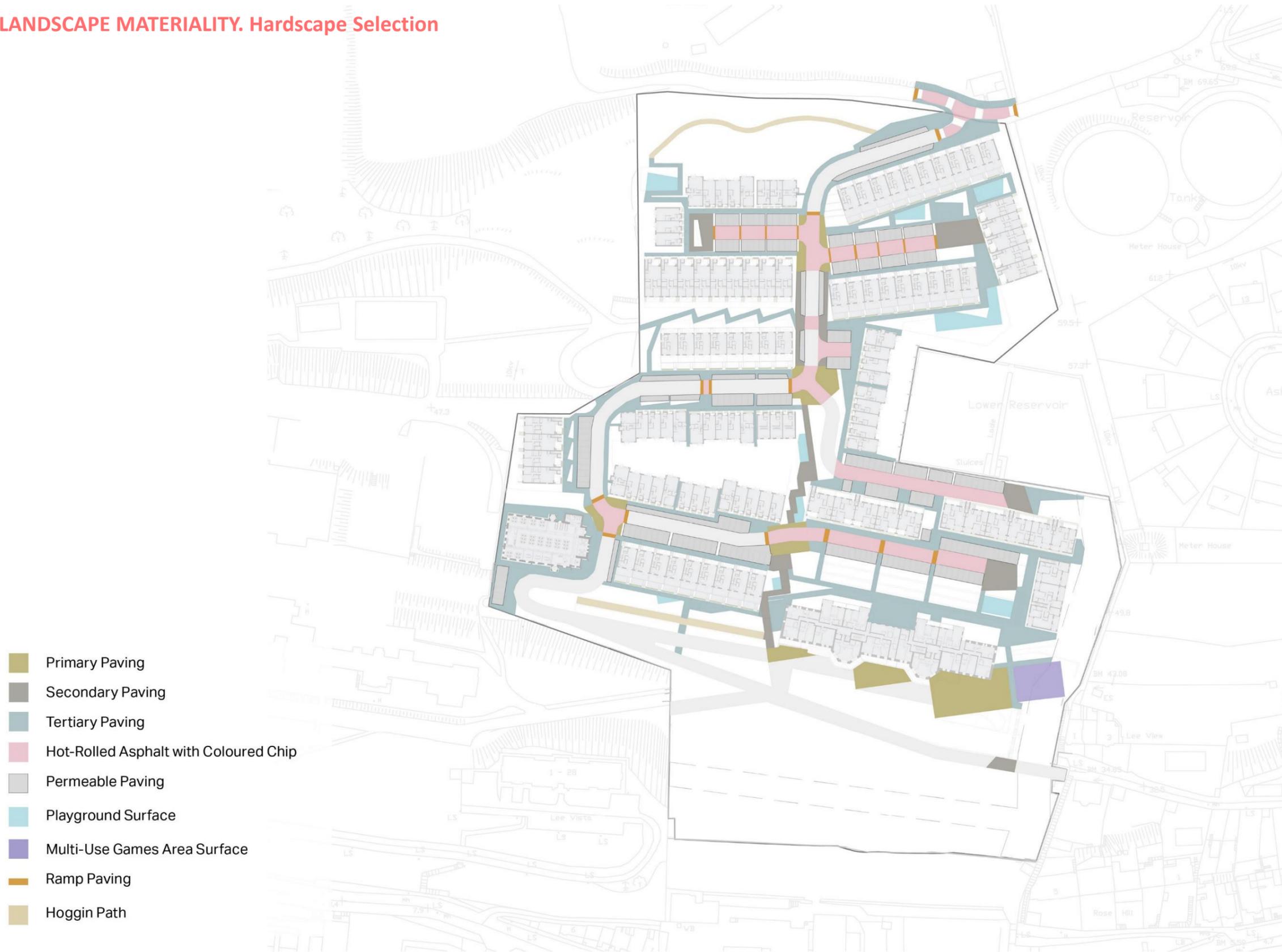


Tilia cordata 'greenspire'



Pyrus calleryana 'Chanticleer'

LANDSCAPE MATERIALITY. Hardscape Selection



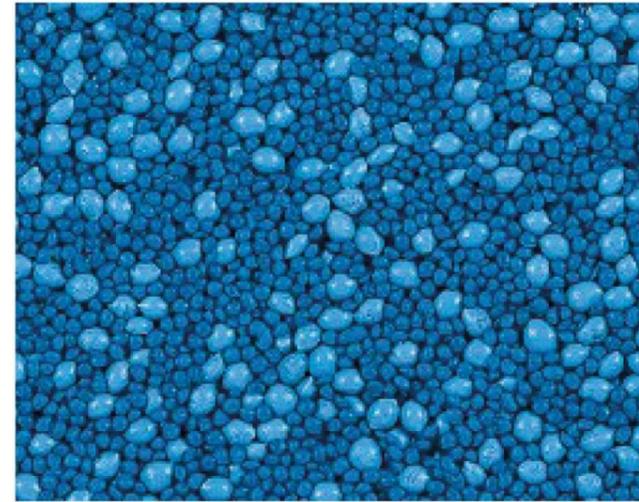
LANDSCAPE MATERIALITY. Hardscape Selection. Surface & Edge Treatments



Primary Paving
- Resin Bound Gravel



Ramp Paving
- Cobbles



Playground Surfaces
- Wet Pour Resin Safety Surface



Secondary Paving
- Exposed Aggregate cast in-situ concrete



Shared Surface
- Hot Rolled Asphalt with Colour Chip



Multi-Use Games Area
- Astro-turf



Tertiary Paving
- Bushed Concrete



Car Parking Paving
- Permeable PCC Pavers



Road Kerb
- Precast Concrete

LANDSCAPE MATERIALITY. Hardscape Selection & Furniture

- Play Equipment
- Bollards
- Cycle Stands
- Seating



LANDSCAPE MATERIALITY. Hardscape Selection & Furniture



Contemporary seating - Plaza and homezone areas



As a result of the challenging topography existing on the site, the retaining structures are used to carve out the open spaces and form the terraced landscape within the centre of the site.

Retaining structures within the site are an essential spine that allow for the development to occur surrounding them. Given the steep topography, St. Kevin's will have more retaining structures than the average site, which provides numerous benefits to the receiving environments while also being aesthetically pleasing.

The retaining structures begin to carve out the open spaces and act to form the terraced landscape within the site. These retaining structures themselves are sloped gently, allowing them to be planted with wildflower mixes requiring minimal maintenance and provide a high quality aesthetic value to the site.



Natural seating - Peripheral areas



Active Landscape



Retaining structure with wild flower planting





St Kevin's Strategic Housing Development

Shanakiel,
Cork.

MATERIALS AND FINISHES – December 2020